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EXAMINER	
MURPHY, DILLON J	

ART UNIT	PAPER NUMBER
2624	

DATE MAILED: 08/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/072,000	SMITH ET AL.	
	Examiner	Art Unit	
	Dillon J. Murphy	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 February 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *07 February 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *10/14/03, 7/15/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☒ Other: *Additional IDS sent 8/2/2004*.

DETAILED ACTION

Specification

The disclosure is objected to because of the following informalities: On page 5, line 18, the disk drive "46" should be –146--.

Appropriate correction is required.

Claim 27 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 11. Claim 28 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 12. Claim 29 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 13. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 4-6, 11-14, 19, 24, 27-30, and 32-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Love et al. (US 6,091,508) and Yoshida et al. (US 6,130,757), hereafter referred to as Love and Yoshida.

Regarding claim 1, Love teaches a method of revising software in a printer comprising revising at least one software component of the multi-component software (Love, col 4, ln 37-39, code is created by using a standard compiler and linker), qualifying the multi-component software (Love, col 4, ln 40-41, compiling the code characterizes software into object code files), bundling the multi-component software as a software bundle (Love, col 4, ln 41-43, object files are combined (i.e. bundled) into a single software bundle), and loading the software bundle on to a printer (Love, col 6, ln 9-12, after code preparation is complete, software bundle is loaded onto printer). Love does not disclose expressly the method of revising software in a multifunctional printer. Yoshida, however, discloses a multifunctional printer with software control (Yoshida, col 4, ln 35-38, copying machine provides duplex copying, sorting function, stapling function, and facsimile function. See also col 7, ln 1-11, disclosing programs stored in memory controlling multifunctional device).

Love and Yoshida are combinable because they are from a similar field of endeavor of network printing. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the multifunctional device of Yoshida with the method of revising, qualifying, bundling, and loading of software of Love. The suggestion for doing so would have been to download the software to control the device from an external source (Love, col 1, ln 50-53), as well as to use a multifunctional

device to expand the capabilities of a single device and to minimize space in a work environment. Therefore, it would have been obvious to combine Yoshida with Love to obtain the invention as specified in claim 1.

Regarding claim 4, which depends from claim 1, the combination of Love and Yoshida teaches a method of revising software for a multifunctional printer wherein the bundle comprises a single file (Love, col 4, ln 40-43, software is bundled into a single Common File Format File).

Regarding claim 5, which depends from claim 4, the combination of Love and Yoshida teaches a method of revising software for a multifunctional printer wherein the file has an extension associated with software bundles (Love, col 4, ln 40-43, software is bundled into a single Common Object File Format File, which implicitly has an associated extension with software bundles).

Regarding claim 6, which depends from claim 1, the combination of Love and Yoshida teaches a method of revising software for a multifunctional printer comprising at least one component selected from the group consisting of print media software and print finishing software (Love, col 4, ln 37-38, downloaded software includes a printer driver).

Regarding claim 11, the combination of Love and Yoshida teaches a computer-readable medium storing computer-executable instructions to load a software bundle on to a multifunctional printer (Love, col 2, ln 61-64, the Input/Output Subsystem controlling the loading software function comprises a control program. The printer also comprises a controller and ROM, col 2, ln 49-55).

Regarding claim 12, which depends from claim 11, the combination of Love and Yoshida teaches a computer-readable medium storing computer-executable instructions further comprising instructions to initialize a multifunctional printer (Love, col 7, ln 19-23, final linking of new downloaded code configures printer for operation by setting in memory).

Regarding claim 13, which depends from claim 11, the combination of Love and Yoshida teaches a computer-readable medium storing computer-executable instructions further comprising instructions to transmit information related to loading a software bundle on a multifunctional printer (Love, col 7, ln 19-28, new downloaded code is activated either automatically or by information transmitted by control panel).

Regarding claim 14, the combination of Love and Yoshida teaches a method of revising multi-component software in a multi functional printer (Yoshida, col 4, ln 35-38, copying machine provides duplex copying, sorting function, stapling function, and facsimile function. See also col 7, ln 1-11, disclosing programs stored in memory controlling multifunctional device), comprising loading multi-component software on to a multifunctional printer in the form of a software bundle (Love, col 6, ln 9-12, after code preparation is complete, software bundle is loaded onto printer).

Regarding claim 19, which depends from claim 14, the combination of Love and Yoshida teaches a method of revising software for a multifunctional printer wherein the multi-component software comprises at least one component selected from the group consisting of print media software and print finishing software (Love, col 4, ln 37-38, downloaded software includes a printer driver).

Regarding claim 24, the combination of Love and Yoshida teaches a method of revising software for a multifunctional printer (Yoshida, col 4, ln 35-38, copying machine provides duplex copying, sorting function, stapling function, and facsimile function. See also col 7, ln 1-11, disclosing programs stored in memory controlling multifunctional device) comprising:

Revising at least one software component of the multi-component software (Love, col 4, ln 37-39, code is created by using a standard compiler and linker);

Qualifying the multi-component software (Love, col 4, ln 40-41, compiling the code characterizes software into object code files);

Bundling the multi-component software as a software bundle (Love, col 4, ln 41-43, object files are combined (i.e. bundled) into a single software bundle); and

Loading the software bundle on to a multifunctional device (Love, col 6, ln 9-12, after code preparation is complete, software bundle is loaded onto printer).

Regarding claim 27, it is rejected for the same reason as claim 11.

Regarding claim 28, which depends on claim 27, it is rejected for the same reason as claim 12.

Regarding claim 29, which depends on claim 27, it is rejected for the same reason as claim 13.

Regarding claim 30, the combination of Love and Yoshida teaches a multifunctional printer (Yoshida, col 4, ln 35-38, copying machine (#1, figure 1) provides duplex copying, sorting function, stapling function, and facsimile function. See also col

7, ln 1-11, disclosing programs stored in memory controlling multifunctional device) comprising:

An input (Love, figure 1, input cable #23) for receiving a software bundle (Love, col 2, ln 46-48) wherein the software bundle includes software components for at least two printer parts (Love, col 4, ln 31-33, software components comprise instructions for controlling paper tray selection and control panel, for example); and

A processor (Love, figure 3, Controller #3 controls operation of printer via instructions from ROM, col 2, ln 50-55) configured to distinguish each of the software components included in the software bundle (Love, col 9, ln 29-41, data is examined and each specific function of new downloaded code is determined and linked).

Regarding claim 32, which depends from claim 30, the combination of Love and Yoshida teaches a multifunctional printer further comprising a Web browser (Love, col 11, ln 15-20, printer may be connected to a network and the downloaded driver may be a web browser).

Regarding claim 33, which depends from claim 30, the combination of Love and Yoshida teaches a multifunctional device wherein one of the at least two printer parts comprises a scanner (Love, figure 4, multifunctional device comprises Printer #1 and Scanner #402).

Regarding claim 34, which depends from claim 30, the combination of Love and Yoshida teaches a multifunctional device wherein one of the at least two printer parts comprises a stacker (Yoshida, figure #1, Multifunctional Device #1 contains sorting

function which stacks paper after sorting operation occurs onto Output Reception Tray #88 of figure 2).

Regarding claim 35, which depends from claim 30, the combination of Love and Yoshida teaches a multifunctional device wherein the processor is configured to recognize a file extension associated with a software bundle (Love, col 4, ln 40-43, software is bundled into a single Common Object File Format File, which implicitly has an associated extension with software bundles. Controller, i.e. processor, provides data control, thereby recognizing associated file extension).

Regarding claim 36, the combination of Love and Yoshida teaches a multifunctional printer (Yoshida, col 4, ln 35-38, copying machine (#1, figure 1) provides duplex copying, sorting function, stapling function, and facsimile function. See also col 7, ln 1-11, disclosing programs stored in memory controlling multifunctional device) having multi-component software, comprising:

Revision means for revising at least one software component of the multi-component software (Love, col 4, ln 37-39, code is created by using a standard compiler and linker);

Qualification means for qualifying the multi-component software (Love, col 4, ln 40-41, compiling the code characterizes software into object code files);

Bundle means for bundling the multi-component software as a software bundle (Love, col 4, ln 41-43, object files are combined (i.e. bundled) into a single software bundle); and

Load means for loading the software bundle on to a multifunctional printer (Love, col 6, ln 9-12, after code preparation is complete, software bundle is loaded onto printer).

Claims 2, 3, 10, 15, 16-18, 23, 25, 26, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Love et al. (US 6,091,508) and Yoshida et al. (US 6,130,757) as applied to claim 1 above, and further in view of Yang (US 6,467,087), hereafter referred to as Love, Yoshida, and Yang.

Regarding claim 2, which depends from claim 1, the combination of Love and Yoshida teaches the method of revising multi-component software in a multifunctional printer comprising revising, qualifying, bundling, and loading the software on to a multifunctional printer, as explained above in the rejection of claim 1. The combination of Love and Yoshida does not disclose expressly a method of placing the bundle on a server. Yang, however, discloses a method of placing the bundle on a server (Yang, col 1, ln 51-56, wherein new versions of printer firmware are downloaded to a printer from an internet location, and col 2, ln 52-54, wherein the firmware flows from a remote server).

Love, Yoshida, and Yang are combinable because they are all from a similar field of endeavor of network printing. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the method of placing the bundle on a server as taught by Yang with the aforementioned combination of Love and Yoshida teaching the method of revising, qualifying, bundling, and loading multi-component software on a multifunctional printer. The suggestion for doing so was

taught by Love by disclosing that the printer may be connected to a network and the downloaded driver may be similar to a web browser (Love, col 11, ln 15-20). Thus the software must have been loaded onto a server to be accessed over the Internet. Therefore, it would have been obvious to combine Yang with the combination of Love and Yoshida to obtain the invention as specified in claim 2.

Regarding claim 3, which depends from claim 2, the combination of Love, Yoshida, and Yang teaches a method of revising software for a multifunctional printer wherein the server comprises the multifunctional printer (Yoshida, col 4, ln 30-32, wherein the multifunctional machines provide, as server apparatuses, their functions to other apparatuses in the network).

Regarding claim 10, which depends from claim 1, the combination of Love, Yoshida, and Yang teaches a method of revising software for a multifunctional printer further comprising completing a pending task prior to the loading (Yang, col 2, ln 2-5, updating method can be performed after general function conducted by printer).

Regarding claim 15, which depends from claim 14, the combination of Love, Yoshida, and Yang teaches a method of revising software for a multifunctional printer further comprising placing the bundle on a server (Yang, col 1, ln 51-56, wherein new versions of printer firmware are downloaded to a printer from an Internet location, and col 2, ln 52-54, wherein the firmware flows from a remote server).

Regarding claim 16, which depends from claim 15, the combination of Love, Yoshida, and Yang teaches a method of revising software for a multifunctional printer wherein the server comprises the multifunctional printer (Yoshida, col 4, ln 30-32,

wherein the multifunctional machines provide, as server apparatuses, their functions to other apparatuses in the network).

Regarding claim 17, which depends from claim 15, the combination of Love, Yoshida, and Yang teaches a method of revising software for a multifunctional printer wherein the software bundle comprises a single file (Love, col 4, ln 40-43, software is bundled into a single Common File Format File).

Regarding claim 18, which depends from claim 17, the combination of Love, Yoshida, and Yang teaches a method of revising software for a multifunctional printer wherein the file has an extension associated with software bundles (Love, col 4, ln 40-43, software is bundled into a single Common Object File Format File, which implicitly has an associated extension with software bundles).

Regarding claim 23, which depends from claim 14, the combination of Love, Yoshida, and Yang teaches a method of revising software for a multifunctional printer further comprising completing a pending task prior to the loading (Yang, col 2, ln 2-5, updating method can be performed after general function conducted by printer).

Regarding claim 25, which depends from claim 24, the combination of Love, Yoshida, and Yang teaches a method of revising software for a multifunctional printer further comprising placing the bundle on a server (Yang, col 1, ln 51-56, wherein new versions of printer firmware are downloaded to a printer from an internet location, and col 2, ln 52-54, wherein the firmware flows from a remote server).

Regarding claim 26, which depends from claim 25, the combination of Love, Yoshida, and Yang teaches a method of revising software for a multifunctional printer

wherein the server comprises the multifunctional device (Yoshida, col 4, ln 30-32, wherein the multifunctional machines provide, as server apparatuses, their functions to other apparatuses in the network).

Regarding claim 31, which depends from claim 30, the combination of Love, Yoshida, and Yang teaches a multifunctional printer wherein the input receives the software bundle via a network (Yang, col 1, ln 51-56, wherein new versions of printer firmware are downloaded to a printer from an internet location, and col 2, ln 52-54, wherein the firmware flows from a remote server).

Claims 7, 9, 20, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Love et al. (US 6,091,508) and Yoshida et al. (US 6,130,757) as applied to claim 1 above, and further in view of Kim et al. (US 6,473,788), hereafter referred to as Love, Yoshida, and Kim.

Regarding claim 7, which depends from claim 1, the combination of Love and Yoshida teaches the method of revising multi-component software in a multifunctional printer comprising revising, qualifying, bundling, and loading the software on to a multifunctional printer, as explained above in the rejection of claim 1. The combination of Love and Yoshida does not disclose expressly a method of executing administrative software to assist in the loading. Kim, however, teaches a method of executing administrative software to assist in loading of software onto a printer (Kim, col 6, ln 63-67, using an "Administration" web page, browser downloads corresponding applets for servicing of printer, causing programs to be executed).

Love, Yoshida, and Kim are combinable because they are from a similar field of endeavor of network printing. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the method of Kim comprising using administrative software to assist in loading software with the method of Love and Yoshida comprising revising, qualifying, bundling, and loading multi-component software on a multifunctional printer. The motivation for doing so would have been to provide a method of servicing and maintaining network peripheral devices remotely, such as from a centralized service organization of a device manufacturer, over a network, such as the World Wide Web (Kim, col 1, ln 42-47), while providing the security of an administrator loading package. Therefore, it would have been obvious to combine Kim with the combination of Love and Yoshida to obtain the invention as specified in claim 7.

Regarding claim 9, which depends from claim 1, the combination of Love, Yoshida, and Kim teaches a method of revising multi-component software in a multifunctional printer further comprising transmitting information related to the revision prior to, during and/or after the loading (Kim, col 1, ln 57-66, when a first packet is sent from a remote server to the network peripheral device, a second packet is sent from the network peripheral device back to the server. Finally, a third packet is sent from the remote server to the peripheral device, causing the software to be downloaded and the peripheral device to be serviced).

Regarding claim 20, which depends from claim 14, the combination of Love, Yoshida, and Kim teaches a method of revising multi-component software in a

multifunctional printer further comprising executing administrative software to assist in the loading (Kim, col 6, ln 63-67, using an "Administration" web page, browser downloads corresponding applets for servicing of printer, causing programs to be executed).

Regarding claim 22, which depends from claim 14, the combination of Love, Yoshida, and Kim teaches a method of revising multi-component software in a multifunctional printer further comprising transmitting information related to the revision prior to, during and/or after the loading (Kim, col 1, ln 57-66, when a first packet is sent from a remote server to the network peripheral device, a second packet is sent from the network peripheral device back to the server. Finally, a third packet is sent from the remote server to the peripheral device, causing the software to be downloaded and the peripheral device to be serviced).

Claims 8 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Love et al. (US 6,091,508) and Yoshida et al. (US 6,130,757) as applied to claim 1 above, and further in view of Siwinski et al. (US 2002/0015066), hereafter referred to as Love, Yoshida, and Siwinski.

Regarding claim 8, which depends from claim 1, the combination of Love and Yoshida teaches a method of revising multi-component software in a multifunctional printer comprising revising, qualifying, bundling, and loading the software on to a multifunctional printer, as explained above in the rejection of claim 1. The combination of Love and Yoshida does not disclose expressly a method wherein the multifunctional printer comprises a smart print cartridge. Siwinski, however, does teach a method of

printing wherein the printer comprises a smart print cartridge (Siwinski, paragraph 42, wherein a radio-frequency transponder is integrally connected to each consumable item, and paragraphs 32, 34, and 36, wherein consumables include the ink in the printer and the print head itself).

Love, Yoshida, and Siwinski are combinable because they are from the same field of endeavor of printing systems. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the method of Siwinski comprising including a smart print cartridge with a printer with the combination of Love and Yoshida comprising revising, qualifying, bundling, and loading multi-component software on a multifunctional printer. The motivation for doing so would have been to provide a printer and method adapted to sense data uniquely associated with a consumable loaded into the printer (Siwinski, paragraph 14) to obviate the need for manual entry of data describing an inkjet consumable, instead providing information to the operator or to the inkjet printer apparatus itself about a consumable loaded in the printer (Siwinski, paragraph 18). Therefore, it would have been obvious to combine Siwinski with the combination of Love and Yoshida to obtain the invention as specified in claim 8.

Regarding claim 21, which depends from claim 14, the combination of Love, Yoshida, and Siwinski teaches a method of revising multi-component software in a multifunctional printer wherein the multifunctional printer comprises a smart print cartridge (Siwinski, paragraph 42, wherein a radio-frequency transponder is integrally

connected to each consumable item, and paragraphs 32, 34, and 36, wherein consumables include the ink in the printer and the print head itself).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Schacht et al. reference, US 2003/0051011, filed September 7, 2001, is cited for teaching a system and method for installing printer driver software from a printer to a host computer, as well as downloading software from an external server via an embedded web server in the printer.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dillon J. Murphy whose telephone number is (571) 272-5945. The examiner can normally be reached on M-F, 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached on (571) 272-7437. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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